

CROWELL & MORING
1001 PENNSYLVANIA AVENUE, N.W.
WASHINGTON, D.C. 20004-2595

(202) 624-2500

CABLE: CROMOR

FACSIMILE (RAPICOM): 202-624-5116

W.U.I. (INTERNATIONAL) 64344

W.U. (DOMESTIC) 89-2445

**ORIGINAL
FILE**

SUITE 1560

4675 MACARTHUR COURT

NEWPORT BEACH, CALIFORNIA 92660-1851

(714) 263-8400

FACSIMILE (714) 263-8414

1 SERJEANTS' INN

LONDON EC4Y 1LL

44-71-936-3036

FACSIMILE 44-71-936-3035

RECEIVED

APR - 8 1992

Federal Communications Commission
Office of the Secretary

April 8, 1992

BY HAND DELIVERY

Ms. Donna R. Searcy,
Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, DC 20554

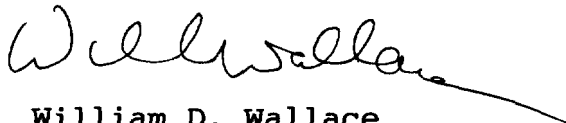
Re: CELSAT, Inc. Request for Pioneer's Preference
(File No. PP-28 in Docket RM-7927).

Dear Ms. Searcy:

Transmitted herewith on behalf of Loral Qualcomm Satellite Services, Inc. for filing with the Commission in File No. PP-28 in Docket RM-7927 are an original and four copies of its "Comments in Opposition."

Should there be any questions regarding this matter, please contact this office.

Very truly yours,



William D. Wallace
(Member of Florida Bar only)

Enclosures

3 Copies rec'd
1st ABCDE

0741

TABLE OF CONTENTS

I. SUMMARY.	2
II. BACKGROUND.	2
III. CELSAT DOES NOT DESERVE A PIONEER'S PREFERENCE BECAUSE IT HAS DEVELOPED NO NEW OR INNOVATIVE TECHNOLOGY FOR USE IN ITS PROPOSED COMMUNICATIONS SERVICE.	5
IV. CELSAT IS NOT AN APPLICANT FOR A COMMISSION AUTHORIZATION.	7
V. BECAUSE CELSAT'S PETITION FOR RULEMAKING IS NOT VIABLE, ITS REQUEST FOR A PIONEER'S PREFERENCE CANNOT BE GRANTED.	9
VI. CELSAT HAS FAILED TO DEMONSTRATE THE FEASIBILITY OF HPCN.	10
VII. CELSAT'S PROPOSAL IS INCONSISTENT WITH THE COMMISSION'S PIONEER'S PREFERENCE RULES AND THE COMMISSION'S POLICIES ON OPEN ENTRY FOR SATELLITE COMMUNICATIONS SYSTEMS.	12
VIII. AWARDING CELSAT A PIONEER'S PREFERENCE WOULD BE CONTRARY TO THE PUBLIC INTEREST AND THE PURPOSE OF THE COMMISSION'S RULE.	14
IX. CONCLUSION.	15

Before The
Federal Communications Commission
Washington, DC 20554

RECEIVED

APR - 8 1992

Federal Communications Commission
Office of the Secretary

In re Request of:

CELSAT, Inc.

For a Pioneer's Preference

RM-7927 (File No. PP-28)

To: The Commission

COMMENTS IN OPPOSITION

Loral Qualcomm Satellite Services, Inc. (LQSS), by its attorneys, hereby submits "Comments in Opposition" to the request for a pioneer's preference filed by CELSAT, Inc.^{1/} As an applicant for authorization to construct and operate a low-earth orbit satellite system using the RDSS bands to provide innovative radiolocation, voice and data services,^{2/} which has also sought a pioneer's preference, LQSS has a substantial interest in the disposition of Celsat's request.^{3/}

CELSAT's pioneer's preference request is a travesty. It makes this request despite having no right to use the technology

^{1/} Celsat's Request for a Pioneer's Preference was filed on February 10, 1992, and placed on Public Notice on March 9, 1992.

^{2/} See Application of LQSS for a Low-Earth Orbit Satellite System, File Nos. 19-DSS-P-91(48) and CSS-91-014 (filed June 3, 1991).

^{3/} Celsat has proposed an allocation to it of spectrum in the L- and S-bands currently allocated for RDSS, for which LQSS has filed an application, and inclusion of its yet-to-be-filed application in the current RDSS processing group, of which LQSS is a member.

on which its proposal rests, despite not having pioneered any technology in its proposal, despite not having filed an application, despite not having any basis for not having timely filed to participate in current RDSS processing group, and despite the complete lack of any showing of viability for its proposal. The Commission should dismiss Celsat's pioneer's preference request and protect the integrity of its processes by making clear that such baseless requests will be denied.

I. SUMMARY.

Celsat has no basis for and does not merit a pioneer's preference: (a) it has not developed new or innovative technology, as Celsat itself admits; (b) Celsat is not an applicant, no application having been filed by it; (c) Celsat's rulemaking petition does not propose viable plans, making its pioneer's preference request moot; (d) Celsat has and cannot demonstrate the viability of its proposal; (e) Celsat's proposal is based on use of technology to which Celsat has no rights; and (f) Celsat's proposal is inconsistent with Commission rules and its open entry policy. For these more than ample reasons, the Celsat request for a pioneer's preference (and its related requests for rulemaking and waiver) should be promptly denied.

II. BACKGROUND.

The Commission has established a "pioneer's preference" for applicants proposing new radio services and/or new technologies enhancing existing services. The purpose of this preference is to

encourage development of innovative communications technology and to enhance spectrum usage. Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services, 6 FCC Rcd 3488 (1991). In its Report and Order, the Commission outlined three requirements for obtaining the preference.

First, the applicant must propose to introduce a new radio service or to improve an existing service through new technology which significantly improves spectrum efficiency or enables sharing or co-use of allocated spectrum. 6 FCC Rcd at 3492, ¶ 37. "This standard can be met by developing new technology that is useful or necessary to the provision of a new radio-based service or that incorporates a significant enhancement or capability within an existing service." Request for Pioneer's Preference in Proceeding to Allocate Spectrum for Fixed and Mobile Satellite Services for Low-Earth Orbit Satellites, slip op. at 6, ¶ 13 (FCC 91-21 released Feb. 11, 1992) ("Little LEO Tentative Decision").

Second, to effectuate the proposal, the applicant must generally file a rulemaking petition requesting either that spectrum be allocated for a new service or that the Commission's Rules be amended to accommodate new technology. Report and Order, 6 FCC Rcd at 3492, ¶ 37; see also Memorandum Opinion and Order, slip op. at 7-8, ¶ 16-18 (FCC 92-57 released Feb. 26, 1992) ("Reconsideration Order").

Third, the applicant must establish, through experimentation or other means, that the proposal is technically feasible. 6 FCC

Rcd at 3493, ¶ 39; see also Reconsideration Order, slip op. at 5, ¶ 10.

In determining whether to award a preference, the Commission has stated that it will apply a flexible standard. The applicant must show that it "has developed an innovative proposal that leads to the establishment of a service not currently provided or a substantial enhancement of an existing service, provided, that the rules adopted for the new or existing service are a reasonable outgrowth of the proposal and lend themselves to the grant of a preference and a license to the pioneer." 6 FCC Rcd at 3494, ¶ 47.

In making its determination, the Commission has stated that it will be guided by the objective of the pioneer's preference: "to reduce the risk and uncertainty innovating parties face in [the Commission's] existing rule making and licensing procedures, and therefore to encourage the development of new services and new technologies." Id. at 3492, at ¶ 32. In this way, the Commission believes the public interest will be served by fostering valuable new technologies and services. See id. at 3490, ¶ 18.

Celsat's pioneer's preference request was filed in conjunction with its petition to amend the Commission's Rules for an allocation of spectrum to what it terms "Hybrid Personal Communications Network," a geostationary satellite and terrestrial cellular network for mobile voice, data and position location services (RM-7927). Celsat proposes to use existing CDMA technology to provide "HPCN" in either of two sets of frequency

bands.^{4/} Celsat's request for a pioneer's preference fails to meet any of the Commission's requirements for such an award, as discussed below, and should be denied.

III. CELSAT DOES NOT DESERVE A PIONEER'S PREFERENCE BECAUSE IT HAS DEVELOPED NO NEW OR INNOVATIVE TECHNOLOGY FOR USE IN ITS PROPOSED COMMUNICATIONS SERVICE.

An applicant for a pioneer's preference must demonstrate that its proposed service is the result of "new technology that is useful or necessary to the provision of a new radio-based service or that incorporates a significant enhancement or capability within an existing service." Little LEO Tentative Decision, slip op. at 6, ¶ 13. Celsat did not develop any new technology. Indeed, Celsat itself admits that its proposed HPCN is derived from technology developed by others. Celsat cannot, therefore, be awarded a pioneer's preference.

According to Celsat, the "key" to its proposal is use of Spread Spectrum CDMA technology. See, e.g., Celsat Petition for Rulemaking, Appendix A, at A-8. However, Celsat makes no claim to have developed such technology in its request. Nor can it, because the emerging CDMA standard for cellular communications was developed by QUALCOMM, Inc., one of the two shareholders of LQSS. See LQSS Comments in Support of Request for Pioneer's Preference (filed April 8, 1992).

Indeed, to describe the HPCN "concept," Celsat states:

^{4/} Band A consists of the 2110-2129 and 2410-2428 MHz bands; Band B requires the spectrum currently allocated to RDSS and MSS on a co-primary basis, 1610-1625.5 and 2483.5-2500 MHz.

The basic modulation and multiple access protocol of the CELSTAR system is designed to fit exactly the emerging standards of the CDMA ground cellular system, but it will operate in a new frequency band. High density metropolitan areas will thus be served mostly by CELSTAR's ground based cellular nodes, architecturally similar to present practice.

CELSAT Petition for Rulemaking, Appendix A, at A-1 (emphasis supplied). These references, although apparently intentionally obfuscatory, are to the QUALCOMM CDMA system. Even if the Commission were to license HPCN, it could not award a "pioneer's" preference for the use of technology developed by others, in this case, by QUALCOMM. No amount of obfuscatory prose can cover up the fact that the "key" to Celsat's proposed "system" was not developed by it.

In fact, all of the technology underlying Celsat's entire satellite communications system appears to have been derived from other sources and service providers. Celsat states the "key elements" of its proposed HPCN system include the combination of:

1. a large, unfurlable high gain antenna with over 100 image feeds;
2. use of geostationary orbits;
3. spread spectrum CDMA technology with forward error correction;
4. low power, omnidirectional transceivers;
5. a high degree of power and frequency coordination using a network controller; and
6. associated ground system elements.

Celsat Request, at 9. No attempt has been made by Celsat to demonstrate that any of these features are anything but "relatively routine design features" which reflect merely the use

of existing satellite communications system technology. Little LEO Tentative Decision, slip op. at 8, ¶ 17. Thus, Celsat does not show innovation is involved in any of these features, nor that Celsat had any role, let alone a pioneering role, in developing any aspect of its proposed system.^{5/}

And, indeed, with respect to system technology, Celsat states: "The CELSTAR system is well defined at this date and utilizes only conventional technology. Several vendors are available for every element of the system including the satellites and launch vehicles." Celsat Petition for Rulemaking, Appendix A, at A-16.

The purpose of awarding a pioneer's preference is "to encourage the development of new services and new technologies." Report and Order, 6 FCC Rcd at 3492, at ¶ 32. Celsat has not demonstrated development of any new technology for use in the CELSTAR system. It fails therefore to satisfy the most basic criterion for a pioneer's preference. See Little LEO Tentative Decision, slip op. at 8, ¶ 18 (denying STARSYS request for failing to meet "standard" of "demonstrat[ing] an innovative contribution toward advancing a commercial . . . communications system"). Accordingly, Celsat's request must be denied.

IV. CELSAT IS NOT AN APPLICANT FOR A COMMISSION AUTHORIZATION.

Celsat claimed, in its Petition filed on February 6, 1992, that it was "contemporaneously" filing an application for

^{5/} With respect to CDMA, as noted above, Celsat has had no role in its development and as discussed below, no current right to use the architecture proposed.

authorization for its CELSTAR system. Now, two months later, and 10 months after applications for use of the RDSS spectrum were cut-off, Celsat has still not filed an application. Not only does this fact raise questions about Celsat's bona fides and the truthfulness of its representations, but also it makes Celsat's pioneer's preference request defective.

Celsat cannot claim to be an applicant, no application having been filed, and a pioneer's preference could be utilized only by an applicant.^{6/} Furthermore, in its description of CELSTAR, Celsat makes references to technical information in its yet-to-be-filed application, making impossible a complete review and analysis of its proposal by interested parties. See Celsat Petition for Rulemaking, at 23, and Appendix A, at A-1. And Celsat has missed the application cut-off date by eight months, a fact not overcome by filing an unsupported request for waiver of the application cut-off date and Celsat's continuing failure to file an application. Celsat's preference request is defective for these reasons, and, indeed, raises serious questions.

^{6/} To date, Celsat has not even filed an application with information regarding its qualifications to be a Commission licensee. No pioneer's preference may be awarded to Celsat until such information is filed and interested parties have had an opportunity to review and comment on it. See Report & Order, 6 FCC Rcd at 3500 n.14 ("It should be noted that for a license to be granted to a company holding a preference, that company must possess the requisite eligibility to hold a license according to the rules of the particular service").

V. BECAUSE CELSAT'S PETITION FOR RULEMAKING IS NOT VIABLE, ITS REQUEST FOR A PIONEER'S PREFERENCE CANNOT BE GRANTED.

To receive a pioneer's preference, the applicant must submit a petition for rulemaking to effectuate its service proposal, requesting either that spectrum be allocated for a new service or that the rules be amended to accommodate new technology. Report and Order, 6 FCC Rcd at 3492, ¶ 37; see also Reconsideration Order, slip op. at 8, ¶ 17. Celsat filed a petition for rulemaking on February 6, 1992, requesting allocations for two alternate spectrum plans for HPCN. However, as discussed more fully in LQSS's opposition to that petition, neither of these plans can be accommodated, and, therefore, Celsat's request for a pioneer's preference is moot.

In its rulemaking petition, Celsat proposed that the Commission allocate 37 MHz in the S-band at 2110-2129 MHz for its downlink and 2410-2428 for its uplink, based upon the Commission's proposal to the 1992 World Administrative Radio Conference (WARC-92) that these bands be used for generic mobile satellite services. Celsat Petition, at 4; see An Inquiry Relating to Preparation for the International Telecommunications Union World Administrative Conference, 6 FCC Rcd 3900 (1991). However, these bands were not allocated for MSS on an international basis at WARC-92, and, therefore, are not available for allocation to that service in the United States.

As an alternative, Celsat proposed that the Commission allocate to HPCN 32 MHz of the spectrum currently allocated to RDSS (and MSS on a co-primary basis as a result of WARC-92) at

1610-1625.5 (uplink) and 2483.5-2500 MHz (downlink). However, a cut-off date of June 3, 1991, was established for applications for communications systems proposing use of this spectrum, a deadline which Celsat has missed by eight months. Although it requested a waiver of the Commission's cut-off rules, Celsat has provided absolutely no justification for such action. Indeed, as noted above, it still has filed no application. Accordingly, Celsat cannot be permitted into the current application processing group.^{7/}

Having failed to provide the Commission with a spectrum proposal which is viable, Celsat's request for a pioneer's preference must be denied.

VI. CELSAT HAS FAILED TO DEMONSTRATE THE FEASIBILITY OF HPCN.

Applicants for pioneer's preferences must demonstrate the technical feasibility of their proposals. "[A] tentative preference will not be awarded to an applicant that has not submitted a demonstration of technical feasibility nor commenced an experiment and reported to us at least preliminary results." Reconsideration Order, slip op. at 5, ¶ 11.

Celsat indicated in its request for a pioneer's preference that it had not yet initiated any experiments for its system. Celsat Request, at 2. Therefore, it must make some other demonstration of the feasibility of its system.

^{7/}

Celsat also proposed use of part of the band between 1850 and 2200 MHz recommended for new technologies, Celsat Petition, at 4 n.2; however, its discussion in its Petition focuses on Band A and Band B.

Celsat claims that the feasibility of HPCN is demonstrated in the technical appendices to its Petition for Rulemaking. Celsat Request, at 9. However, these appendices apparently do not provide all the information or data needed to evaluate the system's feasibility because Celsat refers to information in its "application." While Celsat may believe in the theoretical viability of its system, it has not demonstrated that, based on its or anyone else's experience, the system is feasible so as to warrant the award of a pioneer's preference.^{8/}

Moreover, as discussed in LQSS's opposition to Celsat's petition for rulemaking, to demonstrate the feasibility of its system, Celsat must show that it can use the technology which it proposes. As noted above, much of Celsat's proposal apparently is based on the use in both its space and ground segments of CDMA technology, developed by QUALCOMM. For example, in describing itself as "wedded" to CDMA technology, Celsat states that the results of its analysis were confirmed by successful field trials of CDMA in San Diego. See Celsat Petition for Rulemaking, at 22. These field trials in San Diego were conducted by QUALCOMM and associated companies.

However, Celsat does not have this technology available to it for CELSTAR. QUALCOMM does not have a licensing agreement or any other agreement with Celsat, which would be required for Celsat to use QUALCOMM's CDMA technology.

^{8/} The Commissions's records do not indicate that Celsat has filed an application describing specifically the technical aspects of its proposal. Accordingly, at the least, any consideration of Celsat's petition and request must be stayed pending filing of an appropriate application.

In short, Celsat has not only failed to demonstrate that its system is technically feasible, but it has also failed to demonstrate that the technology purportedly essential to operate CELSTAR is available to Celsat for use in its HPCN.^{9/} Because Celsat has failed to show the technical feasibility of its system, its request for a pioneer's preference must be denied.

VII. CELSAT'S PROPOSAL IS INCONSISTENT WITH THE COMMISSION'S PIONEER'S PREFERENCE RULES AND THE COMMISSION'S POLICIES ON OPEN ENTRY FOR SATELLITE COMMUNICATIONS SYSTEMS.

Celsat proposes that, if the Commission were to adopt its proposed rule changes, that it be awarded a monopoly license for use of the spectrum requested on "an exclusive, primary basis." Celsat Petition for Rulemaking, at 1. This request is inconsistent with the Commission's rules governing award of a pioneer's preference and those governing provision of satellite communications services in the RDSS bands. Accordingly, Celsat's request for a pioneer's preference must be denied.

In promulgating its rules governing award of a pioneer's preference, the Commission has emphasized that "we do not intend to award a pioneer a nationwide monopoly on a service and thereby exclude others from providing that service." Report & Order, 6 FCC Rcd at 3490, at ¶ 19; see also Reconsideration Order, slip op. at 4, ¶ 8 ("the preference holder will face competition from other service providers").

^{9/} Further technical difficulties which make Celsat's proposal nonviable are outlined in LQSS's concurrently filed opposition to Celsat's petition for rulemaking, which is hereby incorporated by reference.

In addition, the Commission has long adhered to a policy of open entry in the satellite communications services. "Our experience with introducing competition into a variety of different communications services over the last several decades has been that the public benefits associated with competition, such as increased choices and lower prices for consumers, are more likely to be realized where there is competition among providers." Radiodetermination Satellite Service, 60 RR 2d 298, 305-06 (1986).

Celsat, in its request, makes clear that HPCN would be a monopoly.^{10/} This demand to become a monopoly service provider is flatly inconsistent with the Commission's stated policies in awarding a pioneer's preference and in establishing satellite services.^{11/} Grant to Celsat of a pioneer's preference would effectively grant it the monopoly position it demands, contrary to the Commission's policies and the public interest. Accordingly, if, as Celsat represents, each HPCN can only accommodate one service provider, the Commission should award no pioneer's

10/ "Fully functional, maximum capacity HPCNs must be constructed and operated as single, nationwide systems, each under the control of one licensee. . . . this is primarily for technical rather than purely economic reasons." Celsat Request, at 40 (footnote omitted).

11/ Inclusion of Celsat in the current RDSS processing group coupled with an award to it of a dispositive pioneer's preference for its monopoly system would, it appears, also constitute a violation of the rights outlined in Ashbacker Radio Corp. v. FCC, 326 U.S. 327 (1945). While the Commission claims that award of a pioneer's preference in related rulemaking proceedings disposes of any Ashbacker issue, see Report & Order, 6 FCC Rcd at 3492, ¶ 33, it appears a question remains as to whether what is in effect award of a license in a rulemaking proceeding can be deemed a "rule" of general applicability subject to the exception outlined in United States v. Storer Broadcasting Co., 351 U.S. 192, 202-05 (1956).

preference to any applicant for HPCN, and hold a comparative hearing to determine which applicant, if any, would best serve the public interest.

VIII. AWARDING CELSAT A PIONEER'S PREFERENCE WOULD BE CONTRARY TO THE PUBLIC INTEREST AND THE PURPOSE OF THE COMMISSION'S RULE.

The Commission's objective in adopting the pioneer's preference rule was "to provide incentive to innovators to either bring forth new services or to increase the efficiency of existing services." Report & Order, 6 FCC Rcd at 3495, ¶ 57. The procedures adopted in turn benefit the public by "ensur[ing] that the benefits of the new service can be realized expeditiously." Id., ¶ 58.

Granting Celsat's request for a pioneer's preference would not advance the Commission's goal in either of these respects. Because the technology Celsat proposes to use is derivative, no manufacturer would be encouraged to make its innovations available to the public if an applicant such as Celsat were awarded a preference. Therefore, in order to promote the Commission's pioneer's preference policy and the public interest, Celsat's request must be denied.

IX. CONCLUSION.

For the reasons discussed above, Celsat's Request for a Pioneer's Preference must be promptly denied.

Respectfully submitted,

LORAL QUALCOMM SATELLITE SERVICES, INC.

By: Linda K. Smith (wdu)
Linda K. Smith
Robert M. Halperin
William D. Wallace
CROWELL & MORING
1001 Pennsylvania Avenue, N.W.
Washington, DC 20004
(202) 624-2500

By: Leslie A. Taylor (wdu)
Leslie A. Taylor
LESLIE TAYLOR ASSOCIATES
6800 Carlynn Court
Bethesda, MD 20817
(301) 229-9341

Its Attorneys

Dated: April 8, 1992

CERTIFICATE OF SERVICE

I, William D. Wallace, hereby certify that I have on this 8th day of April, 1992, caused copies of the foregoing "Comments In Opposition" to be served by hand delivery (as indicated with *) or by U.S. mail, postage prepaid, to the following:

Gary M. Epstein, Esq.
James F. Rogers, Esq.
Kevin C. Boyle, Esq.
Latham & Watkins
1001 Pennsylvania Avenue, N.W.
Suite 1300
Washington, D. C. 20004-2504

Jill Abeshouse Stern, Esq.
Shaw Pittman, Potts & Trowbridge
2300 N Street, N.W., 2nd Floor
Washington, D.C. 20037

Veronica Haggart, Esq.
Vice President & Director
Regulatory Affairs
Motorola, Inc.
1350 I Street, N.W.
Washington, D.C. 20005

James G. Ennis, Esq.
Fletcher, Heald & Hildreth
1225 Connecticut Ave., N.W.
Suite 400
Washington, D.C. 20036

Hollis G. Duesing, Esq.
The Association for American
Railroads
50 F Street, N.W.
Washington, D.C. 20001

J. Ellis McSparran
President
3S Navigation
23141 Plaza Pointe Drive
Laguna Hills, CA 92653

Robert A. Mazer, Esq.
Albert Shuldiner, Esq.
Nixon, Hargrave, Devans
& Doyle
One Thomas Circle, N.W.
Suite 800
Washington, D.C. 20005

Philip L. Malet, Esq.
Steptoe & Johnson
1330 Connecticut Ave., N.W.
Washington, D.C. 20036

Norman P. Leventhal, Esq.
Raul Rodriguez, Esq.
Stephen D. Baruch, Esq.
Leventhal, Senter & Lerman
2000 K Street, N. W.
Suite 600
Washington, D.C. 20006

Lon C. Levin, Esq.
Vice President and Regulatory
Counsel
Leslie A.L. Borden, Esq.
Vice President and General
Counsel
AMSC
1150 Connecticut Ave., N.W.
4th Floor
Washington, D.C. 20036

*Victor J. Toth, Esq.
2000 L Street, N.W.
Suite 200
Washington, D.C.

Dr. Robert L. Riemer
Committee on Radio Frequencies
HA-562
National Research Council
2101 Constitution Ave., N.W.
Washington, D.C. 20418

Eleanor C. Leung
Satellite CD Radio, Inc.
800 K Street N.W.
Suite 750
Washington, D.C. 20001

Bruce D. Jacobs, Esq.
Fisher, Wayland, Cooper &
Leader
1255 23rd Street, N.W.
Suite 800
Washington, D.C. 20037

*Cecily C. Holliday
Satellite Radio Branch
Federal Communications
Commission
2025 M Street, N.W.
Room 6010
Washington, D.C. 20036

*Richard M. Firestone
Chief, Common Carrier Bureau
Federal Communications
Commission
1919 M Street, N.W., Room 500
Washington, D.C. 20554

*Wendell R. Harris
Assistant Bureau Chief
Common Carrier Bureau
Federal Communications
Commission
2025 M Street, N.W.
Room 6010
Washington, D.C. 20554

John L. Bartlett
Wiley, Rein & Fielding
1776 K Street, N.W.
Washington, D.C. 20006

Cheryl Lynn Schneider, Esq.
Communications Satellite
Corporation
950 L'Enfant Plaza, S.W.
Washington, D.C. 20024

William K. Keene, Esq.
Winston & Strawn
1400 L Street, N.W.
Washington, D.C. 20005


*Thomas P. Stanley
Chief Engineer
Federal Communications
Commission
2025 M Street, N.W.
Suite 7002
Washington, D.C. 20554

*Fern J. Jarmulnek
Federal Communications
Commission
2025 M Street, N.W.
Room 6324
Washington, D.C. 20554

*Raymond LaForge
Federal Communications
Commission
2025 M Street, N.W.
Room 7334
Washington, D.C. 20554

*Thomas Tycz
Common Carrier Bureau
Federal Communications
Commission
2025 M Street, N.W.
Room 6010
Washington, D.C. 20554

*James R. Keegan
Chief, Domestic Facilities
Division
Federal Communications
Commission
2025 M Street, N.W., Room 6010
Washington, D.C. 20554


William D. Wallace